

Sigaloëssa frontalis sp. nov.

♂. Front wider than one eye, shining black, a narrow silvery line on each side of the ocellar triangle, beginning at the declivity of the occiput and continuing straight forward half the length of front; anterior fourth of front yellow; compound eyes not limiting the vertex laterally, it being nearly twice as wide as the front and ending in a point each way; antennæ yellow, third joint brown on apical half or more, with upcurved short dense pale hair; arista black, short-plumose, with about a dozen rays; face concave, yellow, with slight whitish reflection; peristoma with a narrow shining black line almost in a horseshoe shape, between which and the eye the moderately wide bucca is pure silvery, which does not extend across the facial depression; proboscis and palpi yellow; a row of small hairs along the peristoma, the anterior one on each side forming a minute vibrissa. The chætotaxy of the front is not well preserved, but one vertical and one fronto-orbital can be seen, the latter close to the eye about the middle of the side.

Mesonotum shining black, the sides beginning with humeri yellow as far as the corners of the scutellum, which is also yellow; pleura yellow, a blackish shining stripe on lower part of mesopleura, a spot on sternopleura and one behind it; halteres yellow with large black knob. Bristles of thorax not very well preserved, but the following can be seen: 2 dc, 2 npl, 1 stpl, 1 post-alar, scutellar 1 pair and a small hair each side.

Legs yellow, slender.

Abdomen blackish above, yellow below.

Wings hyaline, venation as in *lineata*.

Length, 1.5 mm.; of wing, 1.8 mm.

A single male, collected in Peru in 1914 by H. S. Parish.

NEW SPECIES OF TACHINIDÆ (DIPTERA) FROM NEW ENGLAND.

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Phasia (Alophora) phasiatrata sp. nov.

Black, densely brassy yellowish gray pollinose. Length 8.0 mm.

Frontal vitta as viewed from the side, velvety brownish black; as viewed from front, yellowish gray pollinose. Ocellar triangle black, pollinose, the ocellar bristles distinct, proclinate. Sides of front yellowish gray pollinose, widely diverging below; at narrowest part less than one-third as wide as the frontal vitta. Frontal bristles in a single row, descending to base of the antennæ; outside of these sprinkled with black hairs. Orbital bristles absent. Antennæ black, pollinose, with a faint rufous tinge at apex of second and base of the third antennal joints. Third antennal joint less than two times as long as the second. Arista thickened on approximately the

basal third, the penultimate joint as broad as long. Sub-crescent area of facial plate, immediately above base of antennæ, bright shining brownish black. Sides of face yellowish gray pollinose, a spot near the middle bordering the margin of facial plate, piceous. Cheeks one-third as wide as the eye height, bearing numerous long white hairs. Palpi yellow.

Thorax marked with four black vittæ, the two median vittæ fading out just posterior of the transverse suture. Dorso-central bristles, two, the anterior bristles short and weak. Sterno-pleura bearing one long bristle and numerous black hairs. Scutellum black, pollinose, bearing two pairs of marginal bristles. Legs yellowish, pollinose, tarsi black. Middle tibiæ each bearing a single short bristle, placed below the middle; the hind tibiæ pectinate with several bristles on the outer side.

Abdomen short, flattened, and nearly round. Shining black, segments two and three brassy pollinose on the basal two-thirds, the fourth segment wholly brassy pollinose. A median black dorsal vitta on the first three segments. Numerous bristly black hairs of abdomen appressed. Genitalia awl-shaped, directed backwardly.

Wings hyaline, except the base, which is smoky tinged to a point slightly beyond tip of the auxiliary vein. Last section of the third longitudinal vein about one-fourth as long as the preceding section, bearing one or two bristles at its base. Tip of the first longitudinal vein ending beyond small cross-vein. Calypteres yellowish white.

Described from two female specimens; taken at Melrose Highlands, Mass., May 18, 1911, by the writer, and at Cohasset, Mass., June 30, 1914, by Mr. R. T. Webber.

Holotype in the U. S. National Museum, Cat. No. 19238.

Paratype in the collection of the Boston Society of Natural History.

Gonia distincta sp. nov.

Shining black, pollinose species. Length, 11–13 mm.

Front two and one-half times as wide as either eye, the sides as viewed from above, polished translucent yellow. Frontal bristles descending nearly to the base of the third antennal joint, outside of these irregularly placed long macrochætæ and short bristly hairs. Two pairs of orbital bristles. Frontal vitta opaque yellow, the ocellar triangle black. Ocellar bristles stout, reclinate. Facial depression, sides of face and cheeks rich golden yellowish gray pollinose. Sides of face bearing black bristly hairs and a row of four or five macrochætæ on the inner margin, close to facial ridge. Cheeks one-third as wide as the eye height, sprinkled with black hairs and a row of long macrochætæ on the anterior margins. Antennæ four-fifths as long as the face, the first two joints yellow; the third joint black with a rufous tinge at its base, at least two times as long as the second. Arista thickened to the tip, the penultimate joint five-sixths as long as the last. Vibrissæ strong, cruciate, placed less than one-half the length of the second antennal joint above the front edge of the oral margin, two or three bristles above each. Palpi yellow.

Thorax black, pollinose, marked with four black vittæ. Four dorso-central and four sterno pleural macrochætæ. Scutellum yellowish on the apical four-fifths,

bearing three pairs of long marginal macrochætæ, besides the short stout apical pair, which extend vertically or horizontally. Legs black, the front tarsi slightly dilated. Middle tibiæ each bearing three or more macrochætæ on the front side near the middle. Hind tibiæ sub-ciliate.

Abdomen shining bluish black, yellowish gray pollinose with several darker reflecting spots. Second abdominal segment bearing a median marginal pair of macrochætæ, the third a marginal row and the fourth segment a single sub-marginal row. Hairs of abdomen appressed.

Wings hyaline; base of wing, the costal, sub-costal and marginal cells tinged with yellow. Third longitudinal vein bristly at least one-half the distance from its base to the small cross-vein. Apical cell open, ending far before extreme wing tip. Small cross-vein before tip of the first longitudinal vein. The posterior end of hind cross-vein nearer to bend of the fourth longitudinal vein than to the small cross-vein. Calypteres whitish.

Described from three females. One female (Holotype) in the collection of the Boston Society of Natural History; taken by Mr. C. W. Johnson at Westport Factory, Mass., July 31, 1913. Two females (Paratypes) one in collection of the U. S. National Museum Cat. No. 19236, and one in the collection of the Connecticut Experiment Station, taken by Mr. B. H. Walden at New Haven, Conn., May 16, 1911.

Neophorichæta gen. nov.

Close to *Phorichæta*. Eyes bare. Sides of face bearing a row of strong proclinate bristles. Third antennal joint at its greatest width nearly one half as broad as long. Vibrissæ cruciate placed on the oral margin, a bristle immediately above each vibrissa nearly three-fifths as long as the vibrissæ. Head wider than the thorax, the horizontal diameter at vibrissæ shorter than at the base of the antennæ. Penultimate joint of arista at least two times as long as broad. Proboscis fleshy, much shorter than dorso-ventral diameter of the head. Sides of face at narrowest part not over one-fifth as wide as the median depression. Apical cell ending before wing tip, closed, petiolate, the petiole not as long as the small cross-vein. Costal spine prominent. Posterior end of hind cross-vein nearer to bend of the fourth longitudinal vein than to the small cross-vein.

Type of the genus.—*Neophorichæta johnsoni* sp. nov.

Neophorichæta johnsoni sp. nov.

Length, 7-8 mm. Front one and one-fifth times as wide as either eye. Frontal bristles of three or four pairs, strong, cruciate, widely separated, descending to base of the second antennal joint. Outside of these an orbital row of proclinate bristles and several fine black hairs. Posterior orbital bristle stout, directed outwardly. Frontal vitta black, densely grayish pollinose, wider than side of front. Ocellar triangle and sides of front black, grayish pollinose. Ocellar bristles proclinate. Sides of face black, gray pollinose, bearing a few bristly black hairs outside of the

row of facial bristles. Antennæ inserted at a point above the middle of the eye, black pollinose; the third joint with a faint rufous tinge at its base, about four times as long as the second antennal joint. Arista thickened on its basal two-fifths to one-half, the penultimate joint two times as long as broad. Cheeks shining black, pollinose, about one-third as wide as the eye height, bearing several long bristles near the center and scattering black bristly hairs. Palpi black.

Thorax shining black, grayish pollinose, with a bronzy tinge, marked with three black vittæ. Three dorso-central and three sterno-pleural macrochaetae. Scutellum black, bearing three pairs of marginal macrochaetae, the apical pair cruciate. Bristles of scutellar disk, erect.

Abdomen shining black, grayish pollinose on the basal margins of the three posterior segments. The second segment bearing a median discal and marginal pair of macrochaetae, the third a discal pair and marginal row, and the fourth bristly on its apical two-thirds. Bristly hairs of the abdomen appressed.

Wings hyaline, faintly tinged with brownish at the base and along the costa. Posterior cross-vein and the fourth longitudinal vein beyond the bend also faintly bordered with brownish. Third longitudinal vein bristly to the small cross-vein. Fourth longitudinal vein beyond the bend abruptly curved inwardly. Calypteres whitish.

Described from two male specimens taken by Mr. C. W. Johnson, in honor of whom this species is named.

One male (Holotype), N. E. Harbor, Me., July 26, 1909.

One male (Paratype), Machias, Me., July 19. Both specimens in the collection of the Boston Society of Natural History.

Neopales noctuiformis sp. nov.

Black, grayish pollinose. Length 6-8 mm.

Front about as wide as either eye. Eyes hairy. Frontal vitta opaque reddish black. Ocellar bristles strong, proclinate. Orbital bristles absent in the male. Sides of front black, grayish pollinose with a yellowish tinge. Frontal row of bristles descending to or slightly below the base of the third antennal joint; outside of these a row of shorter bristles¹ and irregularly placed, bristly black hairs. Sides of face densely gray pollinose, less than one-third as wide as the median depression. Facial ridges bristly on the lowest three-fifths. Antennæ black, the third joint three and one-half to five times as long as the second. Arista thickened on the basal two to three-fifths, the penultimate joint longer than broad. Cheeks one-fifth as wide as the eye height, bearing bristly black hairs and a row of stout bristles on the anterior margins. Vibrissæ placed on the oral margin. Palpi yellow or brownish.

Thorax black, grayish pollinose, marked with five rather indistinct vittæ. Four dorso-central and three² sterno-pleural macrochaetae. Legs black, knees rufous.

¹ In the holotype the row of bristles on the front, outside of the frontal row, are very weak, more closely simulating bristly hairs; whereas, in the four paratype specimens this row of bristles is quite distinct and prominent. This slight variation is very probably due to the artificial conditions of rearing to which the holotype was subjected.

² The specimens from North Andover, Mass., and Sugar Island, Me., each have three sterno-pleural bristles on one side and four on the other.

Middle tibiae each bearing two or more macrochaetae on the front side near the middle. Hind tibiae sub-ciliate.

Abdomen black, the segments grayish pollinose on the basal four-fifths, with the exception of the first segment, which is destitute of pollen on the dorsum. A median black dorsal vitta. First and second segments bearing a pair of median marginal macrochaetae, the third a marginal row and the fourth bearing macrochaetae on its apical two-thirds. Hairs of abdomen sub-erect.

Wings hyaline. Apical cell open, ending before the wing tip. The third longitudinal vein bearing two or three bristles at its base. Calypteres whitish, faintly bordered with yellowish.

Puparium 7 mm. in length. The anal stigmata highly raised, sub-cylindrical, nearly .5 mm. long. Reticulations in three distinct half circular impressions with a small circular impression in the center.

Described from five male specimens.

One male (Holotype) in collection of the U. S. National Museum, Cat. No. 19237 reared from an unknown Noctuid larva taken at Revere, Mass., by Mr. J. V. Shaffner.

Three males (Paratypes) taken by Mr. C. W. Johnson at Sugar Island, Me., July 17, 1907, and Orrs Island, Me., July 21, 1907. In collection of the Boston Society of Natural History.

One male (Paratype) taken by writer at North Andover, Mass., July 16, 1911. In author's collection.

A NEW WINGLESS PHORID FLY FROM JAMAICA.

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Chonocephalus jamaicensis sp. nov.

♀. Length, 1 mm. Brownish yellow; dorsal abdominal plates fuscous; legs brownish-yellow, lighter beyond the femora. Head very slightly wider than long, broadest at the eyes which are quite near the hind angles; the latter rectangular, rounded only at the extreme corner; from just in front of the eyes, the front is narrowed, the edge regularly concave to the fore margin which is strongly arcuate and about two-fifths as broad as the head behind; sides of head below antennal cavities sinuate, convex behind and somewhat concave in front, turning in toward the median line a little before the fore margin of the front; posterior margin of head straight. Surface of head above covered with small, sub-erect hairs, and with a large bristle at the side margin of the front just above the antenna, followed by a series of three smaller ones extending forward along the edge of the front; side of head just below antenna with a group of three rather large and a few small bristles; oral margin fringed on each side with five delicate, downwardly directed bristles; antennae